General Practice

Do overweight people remove their shoes before being weighed by a doctor? Consecutive study of patients in general practice

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Introduction

Casual observation and discussion with colleagues led me to the hypothesis that patients who are overweight tend to remove their shoes before being weighed by their doctor. I thought that this action was probably an attempt to reduce the reading on the scales. I tested this hypothesis by measuring the body mass index of patients who needed to be weighed as part of their management and noting whether they removed their shoes unprompted. To my knowledge, no such study has previously been performed.

Patients, methods, and results

During the autumn of 1996 I weighed 122 consecutive patients as part of their normal management. I used the same set of scales throughout the study, and each patient was weighed only once. Weights were recorded in kilograms. Patients were excluded from the study if they had difficulty in removing their shoes owing to stiffness, pain, hand disorders, or general debility. Patients were also excluded from the study if their choice of footwear would be abnormally difficult to remove because of complex lacing systems, if they wore boots higher than the ankle, or if their footwear was dirty.

I did not seek patients’ consent to the study because the results were anonymous and would not have affected their management. I did not suggest that patients remove their footwear before being weighed but simply asked them to step on to the scales. If patients asked me whether they should remove their shoes I replied, “Whatever,” with a Gallic shrug. I took the height in metres as recorded in the notes if it had been measured within the previous five years. If this was unavailable I measured the patient’s height using a standard height...
measure mounted on the wall. I calculated body mass index as weight (kg)/(height (m))^2.

Seventy four (61%) patients kept their shoes on and had a mean body mass index of 27.8 (SD 6.0), whereas 48 (39%) patients removed their shoes and had a mean body mass index of 28.8 (6.0). Comparison of the two group means by Student's t test showed no significant difference between them. The average weight of 22 pairs of shoes is 640 g (unpublished data), and allowance for this did not affect the significance of the results.

Comment

Preliminary consideration of this study reflected disappointment at the slaying of an interesting hypothesis by a mundane fact. There is, however, further work to be done on the extended hypothesis that removal of car keys from a pocket before weighing is a certain sign of obesity.